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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,625

03/23/2004

Mark A. Olson

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EXAMINER

LAMBELET, LAWRENCE EMILE

ART UNIT

PAPER NUMBER

1732

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/806,625

Applicant(s)

OLSON, MARK A.

Examiner

Lawrence Lambelet

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1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 12-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, drawn to method of forming ear or nose plugs, classified in class 264, subclass 331.11.
- II. Claims 12-26, drawn to ear or nose plug as product, classified in class 128, subclass 864.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, wherein a transparent elastomeric mixture is cross-linked in situ by actinic radiation.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Frank Compagni on 1/12/2007 a provisional election was made without traverse to prosecute the invention of Group I,

claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

The disclosure is objected to because of the following informalities: The descriptor "Fig. 4B" at lines 7 and 10-11 on page 9 is incorrect. It should read "Fig. 2B".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lampe (U.S. Patent 3,782,379), and further in view of Ahn et al (U.S. Patent Application Publication 2003/0013802).

Lampe discloses a method of forming earplugs reading on claim 1. Lampe teaches providing a room-temperature vulcanizable silicone rubber composition that is easily molded by hand (module) to form ear plugs in situ. See lines 61-66 in column 2 and 3-8 in column 3. Lampe further teaches that the composition includes polysiloxane and catalyst materials. See the Abstract. Lampe further teaches that the mixed

composition results in a putty-like mass and has a curing wait time. See lines 63-68 in column 9 and 1-5 in column 10.

Lampe teaches that high molecular weight diorganopolysiloxane is blended with low weight diorganopolysiloxane (thereby producing a moderately low molecular weight polymer), as required by claim 2. See lines 62-68 in column 6 and 1-18 in column 7. A filler is included, as also required by claim 2. See lines 58-63 in column 8.

Lampe teaches mixing by kneading, as required by claim 4. See lines 55-60 in column 9.

Lampe teaches that the ingredients of the mixture can be divided into two parts: One part having organopolysiloxane polymer with filler (silicone part) and a second part having alkyl silicate with metallic salt (catalyst part). These two components are only mixed together when curing is to begin. See lines 47-60 in column 9.

Lampe does not teach that the mixture parts are equal, as required by claim 1.

Ahn et al, hereinafter "Ahn", teaches an A-B mixture of silicone and catalyst, wherein part A is mixed equally with part B. See paragraph [0162]. It would have been obvious to one of ordinary skill that the mixture parts of Lampe could be balanced equally in the manner of Ahn by distributing the inert filler component.

Lampe does not teach mixing by spatula, as required by claim 5.

Ahn teaches that a spatula is used to mix components. See [00162].

Lampe and Ahn are combinable because they are concerned with a similar technical field, namely, vulcanizable silicone compositions. One of ordinary skill in the art at the time of the invention would have found it obvious to include the mixture ratio of

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Ahn in the compounding process of Lampe. The motivation to do so would have been the simplicity of equal weight ingredient bags. See lines 47-60 in column 9 of Lampe.

Lampe does not teach a removal feature for the molding, as required by claims 1 and 11. It would have been obvious to one of ordinary skill, however, to form a graspable shape for retrieval.

Lampe does not teach rolling a 0.5-1.5 cm³ ball with a tapered end, as required by claim 6, or a 2-4 cm³ ball, as required by claim 8, or forming a bullet shape, as required by claim 7. It would have been obvious to one of ordinary skill, however, that these features are optimizable. A plug to fit the ear or nose would have to be of an insertable size and a narrowed end would facilitate insertion while defining a bullet shape. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 USPQ 215 (CCPA 1980).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lampe in view of Ahn as applied to claims 1-2, 4-8 and 11 above, and further in view of Onohara et al (U.S. Patent 4,834,721).

Lampe/Ahn teach the method of claims 1-2, 4-8 and 11, as discussed above.

Lampe teaches that the alkyl silicate component of the catalyst part contains vinyl groups, as required by claim 3. See lines 25-28 in column 7.

Lampe/Ahn does not teach chloroplatinic acid for a component of the catalyst, as required by claim 3. Lampe/Ahn further does not teach an insertion time of 1-3 minutes, as required by claim 9, or a cure time of 3-5 minutes, as required by claim 10.

Onohara et al, hereinafter "Onohara", teaches use of a chloroplatinic acid catalyst in an addition reaction with a polysiloxane having vinyl groups. See lines 9-15 in column 6 and 3-12 in column 11. Onohara further teaches that such a composition with a platinum type catalyst can cure in 5 minutes at 30° C (below body temperature). See lines 3-12 in column 11. Since the cure is substantively complete in 5 minutes, and the preparation would require some time, maybe 1-2 minutes, it would have obvious to one of ordinary skill that the optimum insertion time preserving malleability would be 2-3 minutes from the onset of mixing .

Lampe/Ahn and Onohara are combinable because they are concerned with a similar technical field, namely, silicone compositions. One of ordinary skill in the art at the time of the invention would have found it obvious to include the catalyst of Onohara in the compounding process of Lampe/Ahn. The motivation to do so would have been to hasten cure time. See lines 63-38 in column 9 of Lampe.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents are cited to further show the state of the art with regard to in situ molding of ear plugs:

U.S. Patent Application Publication 2005/0224082 to Johnson (not prior art)

U.S. Patent 4,007,153 to Smith

U.S. Patent 5,605,955 to Hirai

U.S. Patent 5,319,021 to Christy

U.S. Patent 3,833,701 to Johnson et al

U.S. Patent 3,440,314 to Frisch

U.S. Patent 5,202,362 to Hermele

U.S. Patent 2,910,980 to Stewart

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Lambelet whose telephone number is 571-272-1713. The examiner can normally be reached on 8 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LEL
1/13/2007


CHRISTINA JOHNSON
SUPERVISORY PATENT EXAMINER
1/13/07